G3840/G3840F FRYERS

INSTALLATION, SERVICING and USER INSTRUCTIONS

These appliances must be installed and serviced by a qualified person as stipulated by the Gas Safety *(Installation & Use)* Regulations.

IMPORTANT

The installer must ensure that the installation of the appliance is in conformity with these instructions and National Regulations in force at the time of installation. Particular attention MUST be paid to -

Gas Safety *(Installation & Use)* Regulations
Health And Safety At Work etc. Act
Local and National Building Regulations
Fire Precautions Act
I.E.E. Regulations for Electrical Installations
Electricity at Work Regulations

Detailed recommendations are contained in **DW172 Institute of Gas Engineers** published documents : **IGE/ UP/ 1, IGE/ UP/ 2**, **IGE/ UP/ 4**, **BS6173** and **BS5440**

These appliances have been CE-marked on the basis of compliance with the Gas Appliance Directive for the Countries, Gas Types and Pressures as stated on the data plate.

WARNING -
TO PREVENT SHOCKS, ALL APPLIANCES, GAS OR ELECTRIC, MUST BE EARTHED.

On completion of the installation, these instructions should be left with the Engineer-in-Charge for reference during servicing. Further to this, the user instructions should be handed over to the user, having had a demonstration of the operation and cleaning of the appliance.

PREVENTATIVE MAINTENANCE CONTRACT

In order to obtain maximum performance from this unit we would recommend that a Maintenance Contract be arranged with SERVICELINE. Visits may then be made at agreed intervals to carry out adjustments and repairs. A quotation will be given upon request to the SERVICELINE contact numbers below.

WEEE Directive Registration No. WEE/DC0059TT/PRO
At end of unit life, dispose of appliance and any replacement parts in a safe manner, via a licenced waste handler. Units are designed to be dismantled easily and recycling of all material is encouraged whenever practicable.

This equipment is **ONLY FOR PROFESSIONAL USE**, and shall be operated by **QUALIFIED** persons. It is the responsibility of the supervisor or equivalent to ensure that users wear **SUITABLE PROTECTIVE CLOTHING** and to draw attention to the fact that some parts will, by necessity, become **VERY HOT** and will cause burns if touched accidentally.

Falcon Foodservice Equipment
HEAD OFFICE AND WORKS
Wallace View, Hillfoots Road, Stirling. FK9 5PY. Scotland.
SERVICELINE CONTACT
Phone: 01438 363 000 Fax: 01438 369 900

T100806 Ref. 3

IMPORTANT INFORMATION

Warranty Policy Shortlist

Warranty does not cover :-

- Correcting faults caused by incorrect installation of a product.
- Where an engineer cannot gain access to a site or a product.
- Repeat commission visits.
- Replacement of any parts where damage has been caused by misuse.
- Engineer waiting time will be chargeable.
- Routine maintenance and cleaning.
- Gas conversions i.e. Natural to Propane gas.
- Descaling of water products and cleaning of water sensors where softeners/ conditioners are not fitted, or are fitted and not maintained.
- Blocked drains
- Independent steam generation systems.
- Gas, water and electrical supply external to unit.
- Light bulbs
- Re-installing vacuum in kettle jackets.
- Replacement of grill burner ceramics when damage has been clearly caused by misuse.
- Where an engineer finds no fault with a product that has been reported faulty.
- Re-setting or adjustment of thermostats when unit is operating to specification.
- Cleaning and unblocking of fryer filter systems due to customer misuse.
- Lubrication and adjustment of door catches.
- Cleaning and Maintenance
    - Cleaning of burner jets
    - Poor combustion caused by lack of cleaning
    - Lubrication of moving parts
    - Lubrication of gas cocks
    - Cleaning/adjustment of pilots
    - Correction of gas pressure to appliance.
    - Renewing of electric cable ends.
    - Replacement of fuses
    - Corrosion caused by use of chemical cleaners.

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SECTION 1 - INSTALLATION

UNLESS OTHERWISE STATED, PARTS WHICH HAVE BEEN PROTECTED BY THE MANUFACTURER ARE NOT TO BE ADJUSTED BY THE INSTALLER.

Please ensure that any plastic coatings are removed prior to use. Before operation, pan requires to be thoroughly cleaned and dried.

Discolouration of heated parts is caused by factory testing to ensure a satisfactory unit. It does not affect quality or performance.

1.1 MODEL NUMBERS, NETT WEIGHTS and DIMENSIONS

Model	Width *(mm)*	Depth *(mm)*	Height *(mm)*	Weight *(kg)*
G3840 Fryer	400	770	1090	83
G3840F Fryer	400	770	1090	94

Pan oil capacity: 18 litres cold, good quality oil *(to -MIN- mark)*

1.2 SITING

Each unit must be installed on a firm level floor in a well-lit draught free position. The fryer should be installed in a freestanding position to prevent any possibility of sideways tipping under force. The means of restraint may be the manner of installation, such as connection to a battery of appliances or installing the fryer in an alcove, or by separate means, such as adequate ties.

1.2.1 Anti-tipping Kit

An anti-tipping mechanism is supplied with unit. If these are to be fitted, the brackets must be fitted to locate the fryer in the correct position relative to any walls as detailed below. Fixing holes are provided in the fryer base to accommodate the bracket. The bracket should be fitted as detailed in Figure 1. The retaining chain has a quick release eyelet. Secure to fixing point and secure bracket to floor after alignment with anti-tipping device attached to the fryer. Adjust to slide below floor bracket.

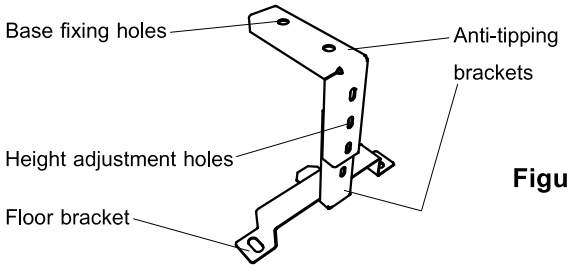


Figure 1

Figure 1 - Anti-tipping Bracket

1.2.2 Clearances

The unit requires a clearance of at least 150mm to rear between unit and any combustible wall.

Important

If fryer is to be installed with other appliances then the instructions for every model should be consulted to determine the necessary clearance to any combustible wall or overlying surface.

Some appliances require greater clearance distances than others. The largest clearance will therefore determine overall distance for a complete suite of adjoining appliances.

1.3 VENTILATION

The appliance ventilation requirements should be in line with national and local regulations.

The ventilation rate for these models is 26m³/min.

The appliance flue discharges vertically from top of unit. There must be no direct connection of flue to any mechanical extraction system or outside air. The fryer should be installed under a ventilated canopy.

Adequate ventilation, whether natural or mechanical must be provided to ensure sufficient fresh air for combustion and for removal of combustion products which may be harmful to health.

For multiple installations, requirements should be added together. Installations should be made in accordance with local and/or national regulations applying at the time. A competent engineer must be used for any installation work.

1.4 GAS SUPPLY *(Both models)*

To be checked at installation, gas conversion or repair.

The SIT gas valve, situated at rear RH side of unit and accessible by removing RH side, has an in-built governor. The inlet pressure should be checked at valve inlet test nipple using a manometer and burner pressure should be set at test nipple on burner manifold, again by means of a manometer as per values indicated on Page 4 *(for either natural or propane gas)*. This is achieved by removing brass dust screw from valve governor and adjusting governor accordingly using a screwdriver - clockwise rotation increases pressure.

Note: Propane requires governor to be adjusted clockwise to maximum adjustment. **i.e. fully open**

	Inlet pressure	***Burner pressure at manifold***
Natural Gas	**20mbar**	**14mbar** *(+/- 0.75mbar)*
Propane Gas	**37mbar**	**32mbar** *(+/- 1mbar)*

The incoming service must be of sufficient size to supply full rate without excessive pressure drop. A gas meter is connected to service pipe by gas supplier. Any existing meter should be checked preferably by gas supplier to ensure that it is adequate to deal with rate of gas supply required.

The gas supply tubing or hose shall comply with national requirements in force. It shall be periodically examined and replaced as necessary.

Installation pipe work should be fitted in accordance with IGE/UP/2. The size of pipes from meter to unit must not be less than that of appliance inlet connection. A 3/4" BSP inlet connection is fitted to unit.

An isolating valve must be located close to the unit to facilitate shut down during an emergency or routine servicing. This must be easily accessible to the user. The installation must be tested for gas tightness as stated in IGE/UP/1.

Domestic type, flexible rubber tube connections must NOT be used with this appliance.

Only tube complying with BS669 Part 2, specification of corrugated metallic flexible hoses for catering appliances, shall be used.

1.5 ELECTRICAL SUPPLY

The unit is equipped with a 3-core flexible cord with standard 3 pin plug fitted with a 13A fuse. A regular 13A socket outlet can be used.

If supply is provided through a distribution fuse box, it must be via a fuse with a maximum rating of 13A.

In the event of mains cable being replaced, any new cable should comply with 60245 IEC 57 designation. *(H05 RN - F)*

	Rated Voltage	Rated Current
G3840/G3840F	230V~	3.55amps

THE APPLIANCE MUST BE EARTH BONDED.

1.6 TOTAL RATED HEAT INPUTS

Natural and Propane Gas
23kW *(nett)* 86,374 btu/hr *(gross)*

1.7 INJECTOR SIZES

Natural Gas

Burner	Pilot
2 x Ø2.7mm	Polidora G31.2

Propane Gas

Burner	Pilot
2 x Ø1.7mm	Polidora G25

SECTION 2 - ASSEMBLY and COMMISSIONING

The gas supply piping and connection to appliance must be installed in accordance with the local regulations in conjuncion with those listed on the cover of this manual.

2.1 ASSEMBLY

a) Unpack appliance

b) Unpack fryer baskets and accessories.

c) Place basket support grid and basket in pan.

d) Level appliance and fit all service protection kits. *(Anti-tilt kit is supplied).*

2.2 CONNECTION TO A GAS SUPPLY

Connect gas supply and test for gas tightness.

Caution - Ensure that pan contains an acceptable level of liquid before igniting burner.

Due to the presence of mains electrics, integral pipe work should be checked for gas tightness using an appropriate gas leak detector.

Caution - Installation engineers should note that for first time connection of fryer, **it is essential** that inlet supply to fryer be completely purged of air prior to first lighting attempt. Otherwise, since this is a *"light pilot first every time"* system, it will take a significant number of attempts to light due to the small amount of air bled from pipe by pilot at each attempt.

This should not be initially treated as a fault.

Please note that several attempts will still be required after air purge for first time lighting. This is due to the capacity of valve and governor.

2.3 CONNECTION TO AN ELECTRICAL SUPPLY

Ensure flexible cable does not come into contact with any hot parts. The fuse rating should be 13A.

Colour coding of power supply cables is as follows:

Live - **Brown**, Neutral - **Blue**, Earth - **Green/Yellow**

2.4 STARTING UP

When using fat melting cycle and loading solid fat for the first time, always remove fryplate as detailed in Section 9.

Solid fat should be in direct contact with fryer pan. Refer to Section 9.

2.4.1 G3840 Fryer Control Panel *(See Figure 2)*

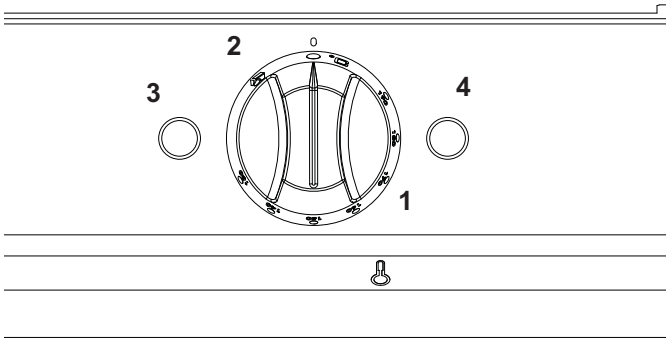


Figure 2 – G3840 Control Panel

1. ON/OFF and Temperature Control Knob

Temperature Selection *(140 - 190°C). (Unit is off when control is in position indicated).*

2. Fat Melt Position

Feature for slow pulsed heating of solid fats.

3. Power on indicator.

4. Heat Demand Indicator

Illuminates when thermostat demands heat, i.e. oil temperature is more than 5ºC below temperature setting. Extinguishes when desired temperature is reached.

2.4.2 G3840 & G3840F - Additional Controls *(See Figure 3)*

The following additional controls are located behind cabinet door.

1. Burner and Temperature Controls ON/OFF Switch

Cuts power to burner and temperature controls.

2. Burner Lockout Indicator

Indicates flame failure.

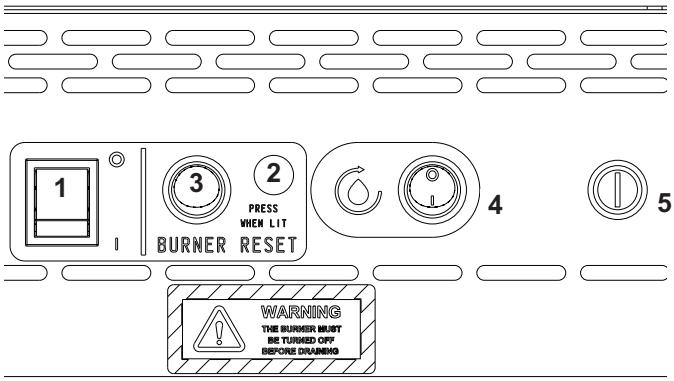


Figure 3 - Additional Controls

3. Burner Lock-Out Reset Switch

Resets burner for further lighting attempts when burner lockout indicator is illuminated.

4. Filtration Pump Switch *(G3840F only)*

Energises filtration pump when burner switch is in OFF*(O)* position.

5. Temperature Safety Limiter Reset Button

Located inside red recess, below black cover.

2.4.3 G3840 and G3840F Controller Diagnostic Indicators *(Refer to Control Panel Wiring Diagram Page 14)*

Green LED ‘ON’ indicates heat demand.

Green LED ‘OFF’ indicates no heat demand.

Red LED flashes if temperature probe is either short or open circuited.

Red LED is permanently ‘ON’ to indicate system is OK. Set point is +/-7ºC of mid-set point.

2.5 PRE-COMMISSIONING CHECK

1. Clean out pan thoroughly using hot water and detergent. Rinse out and dry thoroughly.

Note
For further detail with regard to cleaning, refer to Section 8.

2. Ensure drain valve is closed. Fill pan with clean cooking oil to -MIN- *(maximum cold fill mark)* indicated on fryplate. *(See Figure 5)*
   Note: MAX refers to maximum **hot** fill mark.
3. With gas supply still shut off, turn on electrical mains supply.
4. Open door and press temperature limit thermostat reset button *(red)*, refer to Section 2.6. Set burner switch to Position 'I' *(ON position)*.
5. Turn control knob to desired temperature *(140ºC)* and heat demand indicator will illuminate *(Figure 2, item 3).*
6. Fryer ignition sequence will commence and spark may be heard before unit locks out.

Note: Ignition system will attempt a second sequence, 14 seconds after completion of first try if no flame is detected during first attempt. *(Unit will only lock out after 2nd attempt).*

7. Neon next to burner switch inside door will illuminate to indicate lockout has occurred and that no burner flame is present. G3840 / G3840F Additional controls - Item 3 on Figure 3.
8. Turn gas supply on.
9. Press lockout reset switch. See Figure 3 *(Lock out indicator will extinguish).*
10. Burner will ignite and heat indicator will illuminate to signify that burner is on.

If lockout should occur, repeat Steps 10 -11 until air is bled from supply and burner lights.

11. When burner flame is established, check for gas leaks. Care should be taken because mains voltage is present. Isolate after gas checks.

2.5.1 Checking Controller Operation

To check operation of controls, refer to Using The Controller - Section 6.2.3.

2.5.2 Checking Oil Filtration Pump

To check operation of oil filtration pump, refer to Section 7.

Important
After installation, the responsible technician should check for gas leaks and ensure the appliance is operating safely and satisfactorily before handing over to the user.

2.6 TEMPERATURE LIMIT THERMOSTAT

The unit is equipped with an additional temperature limit thermostat, independent of main controller.

In the case of operating thermostat failure, allowing oil temperature to rise above predetermined legislation safe zone *(230ºC)*, limit device will activate and cut power to controller. It will also stop the flow of gas to burner, refer to Figure 3.

a) Turn burner and temperature controls ON/OFF knob to OFF position.

b) Allow oil to cool below 180ºC

c) Reset red button on limit thermostat with a pen or similar item, refer to Figure 3.

d) Turn burner and temperature controls ON/OFF knob to ON position.

e) Re-select temperature.

f) If limit thermostat reactivates carry out fault finding on temperature control circuitry.

2.7 INSTRUCTION TO USER

After installing and commissioning appliance, please hand Instructions to user or purchaser and ensure that the person*(s)* responsible understands the instructions to correctly operate and clean unit in a safe manner.

Emphasis should be given to safe operation and use of drain valve and oil bucket. Oil bucket should not be overfilled to allow safe movement. Oil should be allowed to cool before any manual handling.

Note: The oil container may be heavy. Drain small amounts at a time if necessary, before lifting container. Manual handling regulations should be observed.

It is important to ensure that location of gas shut-off valve is made known to user and that procedure for operation in an emergency be demonstrated.

SECTION 3 -
SERVICING AND CONVERSION

BEFORE ATTEMPTING ANY SERVICING, TURN OFF GAS SHUTOFF VALVE AND ELECTRICAL SUPPLY. TAKE STEPS TO ENSURE THAT THESE CANNOT BE INADVERTENTLY TURNED ON.

AFTER ANY MAINTENANCE TASK, CHECK UNIT TO ENSURE THAT IT PERFORMS SAFELY AND CORRECTLY AS DESCRIBED IN SECTION 2.5.

ALWAYS CHECK FOR GAS LEAKS.

3.1 GAS CONVERSION

(Natural to propane or propane to natural)

This model is suitable for field conversion. A kit with fitting instructions can be supplied upon request.

3.2 INTEGRAL COMPONENTS

Check and service the following parts regularly:

1. Oil ingress to electrical components.
2. Flue for any blockages.
3. Visual inspection of components and fryer pan.
4. Temperature limit thermostat calibration.

3.3 ACCESS PROCEDURES

Before removal of any fryer components:

a) Ensure appliance electrical and gas supply has been shut off and cannot be accidentally turned back on.

b) Allow oil to cool before any operation that requires pan to be drained.

c) Only use parts specified by the manufacturer.

d) All components replaced MUST be fully checked after fitting to ensure safe operation.

e) A full pre-commissioning check as detailed in Section 2.5 should be carried out.

3.4 GAS CONTROL VALVE

a) Remove RH side panel *(fixing behind control panel, hex bolt below panel at front and 3 fixings at rear)* and rear control compartment cover *(3 fixings)*.

b) Unplug valve control wires.

b) Split pipe work from both sides of valve.

c) Disconnect pilot pipe.

d) Remove screws holding valve to bracket.

e) Replace in reverse order. Check system for gas leaks.

f) Reset burner pressure as detailed in Section 1.4.

3.5 PILOT/IGNITER/SENSOR ASSEMBLY

a) Open door and remove oil bucket splash cover by means of two screws on each leg at front and slide out through door.

b) Disconnect electrode and ignition wires.

c) Using a screwdriver and 8mm spanner, remove pilot assembly and bracket from burner.

d) Drop assembly and remove pilot pipe.

e) Replace parts in reverse order. Ensure that a good earth connection has been made.

3.6 BURNER

a) Remove pilot/igniter/sensor assembly as Section 3.5.

b) Remove drain handle.

c) Split incoming gas connection to manifold.

d) Undo two middle mounting bolts and remove two front burner retention bolts and slide burner forward until it clears rear retention mountings. Carefully drop burner.

e) Re-connect in reverse order.

f) Gas leak check manifold and pilot gas connections.

3.7 BURNER RESET SWITCH, ON/OFF SWITCH and FILTRATION PUMP SWITCH

a) Remove control panel by undoing fixings at top and bottom of control panel and unplug control panel.

b) Undo 2 fixings and hinge down switch mounting panel.

c) Remove electrical connections from switch. Remove switch by squeezing side fixings and pushing it through aperture.

d) Replace part in reverse order.

3.8 BURNER LOCK OUT NEON

a) Remove control panel by undoing fixings at top and bottom of panel. Unplug panel.

b) Undo 2 fixings and hinge down switch mounting panel.

c) Remove electrical connections and remove neon retention nut.

d) Replace part in reverse order.

3.9 TEMPERATURE CONTROLLERS

a) Remove control panel by undoing fixings at top and bottom of control panel and unplug control panel.

b) Disconnect electrics loom and remove fixings to enable controller to be removed.

c) Carefully replace in reverse order.

3.10 MAINS ON and HEAT DEMAND NEONS

a) Remove control panel by undoing fixings at top and bottom of control panel. Disconnect control panel.

b) Remove electrical connections and undo retention nut.

c) Carefully replace in reverse order.

3.11 DRAIN VALVE

a) Remove burner as detailed in Section 3.6

b) Ensure fry pot is empty. Refer to Section 8.

c) Remove nut from handle and lift handle off.

d) Remove front panel fasteners.

e) Disconnect wiring, noting all connections.

f) Remove front panel to access drain valve.

g) Undo drain pipe. Use appropriate spanner to remove drain valve.

h) Replace in reverse order and check for oil leaks.

3.12 FILTRATION PUMP

a) Remove back panel and flexi-hose at filtration pump.

b) Disconnect electrical coupling plug and connections from start.

c) Remove nuts from pump mounting bolts *(accessed through fryer door at rear of oil bucket compartment)* and lift pump clear.

d) Disconnect pump from bracket.

e) Replace in reverse order.

Note: Check for oil leaks before replacing any panels.

3.13 IGNITION CONTROL BOX

a) Remove rear compartment cover.

b) Unplug valve and control plugs. Remove ignition, detector and earth connections.

c) Undo three fixings *(one at rear, two at front)*.

d) Remove ignition control box.

e) Replace in reverse order & test.

3.14 TEMPERATURE LIMIT THERMOSTAT

a) Open control panel.

b) Remove probe and safety thermostat protective cover *(ensuring insulation is removed intact)*.

c) Remove phial and probe protective cage inside pan.

d) Undo two phial bracket retention nuts and remove thermostat phial from bracket.

e) Undo safety thermostat capillary nut. Using a thin screwdriver - insert into boss from inside pan - carefully tap capillary sealing washers through to control compartment.

f) Remove thermostat.

g) Disconnect thermostat wires.

h) Carefully replace in reverse order. Check for oil leaks and that thermostat calibration is within specification.

SECTION 4 - SPARES

When ordering spare parts, always quote unit type and serial number. This information can be found on data plate, located inside fryer door on LH leg support face.

Spares List

Oil bucket

Fish plate

Baskets

Splash guard / basket hanger

Control knob

Safety thermostat

Operating thermocouple

Ignition box

Pump

Pilot assembly

Valve

Fast controller

Neon

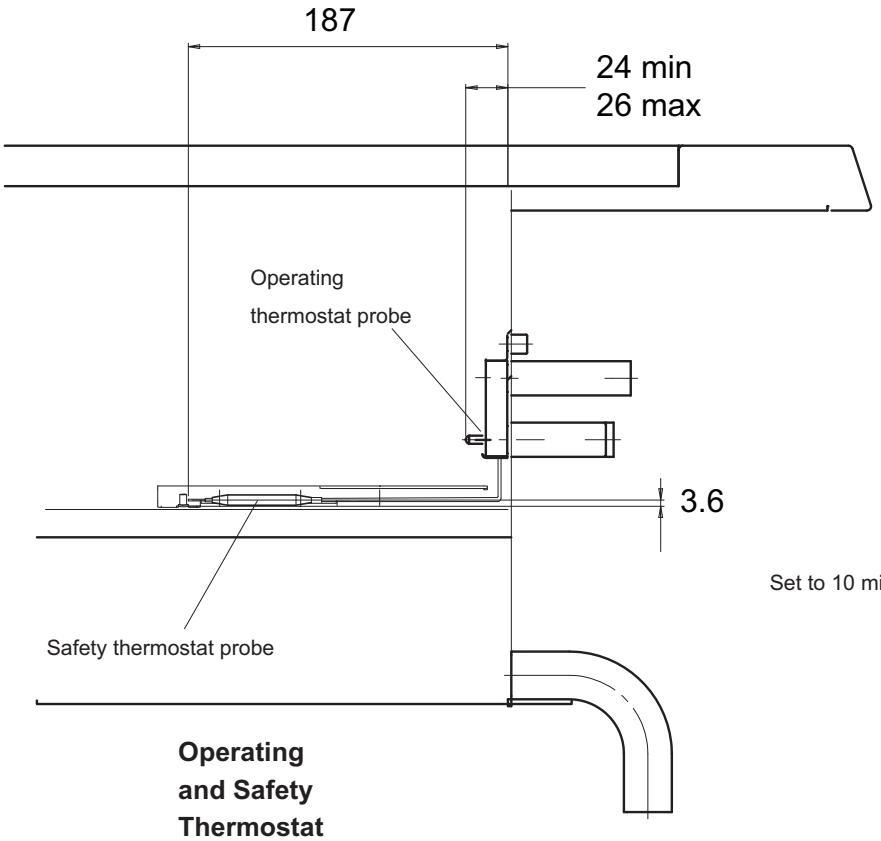
Mains cable

Switches *(Pump, reset, on / off)*

HT *(Ignition wires)*

Injectors *(Kit)*

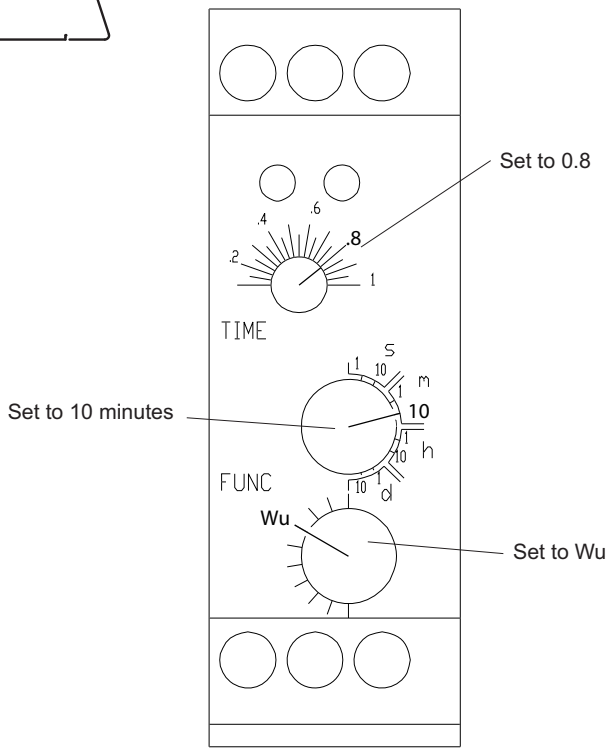
SECTION 5 - CRITICAL DIMENSIONS

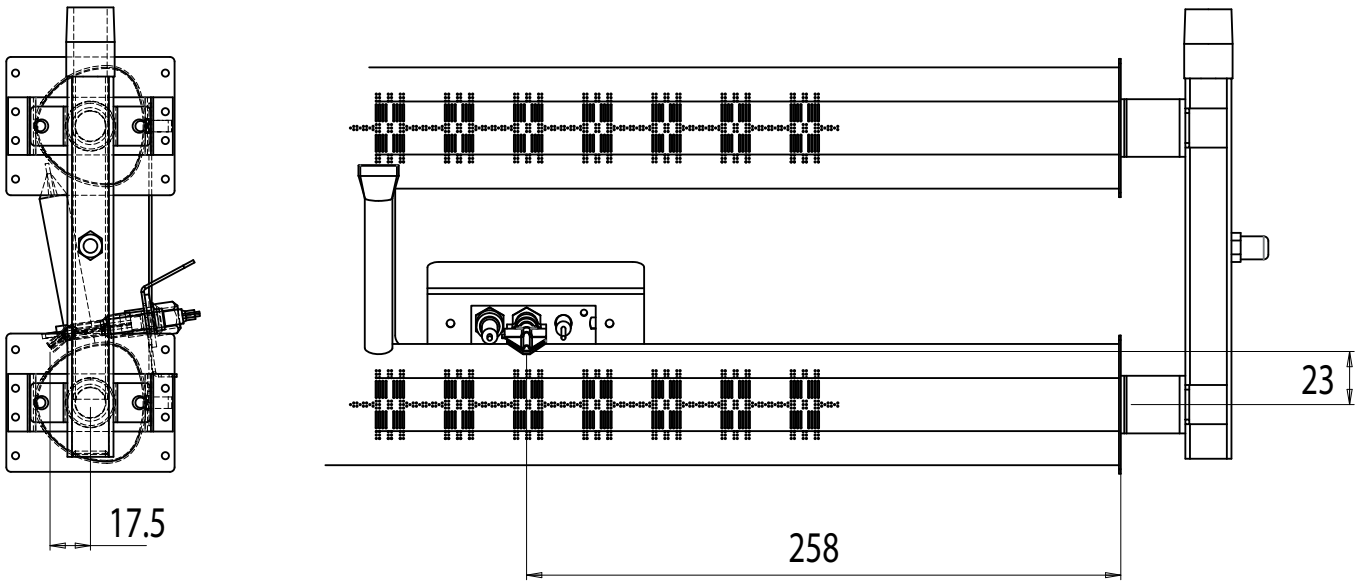


Operating and Safety Thermostat

Timer Pump Settings

Set for 230V





Pilot to Burner Dimension

SECTION 6 -
OPERATING INSTRUCTIONS

The fryers are of single pan type.

G3840 - Manual control model.

G3840F - Manual control model with inbuilt filtration.

USE OF OILS/SHORTENING/SOLIDS
(COOKING MEDIUM)
As these are highly flammable when in their liquid state, caution should always be taken when using cooking medium.

Recommendation
PPE *(Personal Protective Equipment)* should be used when cleaning or handling medium within this fryer.

Medium should not be overheated as this will increase the risk of fire.

Note: Fryer is fitted with a thermal safety device. This will stop heating of medium if it becomes overheated.

This appliance will always fail safe.

Note: NEVER leave a working unit unattended.

Medium must always be maintained within fry pot.

Cold Medium - when filling with cold medium *(see Figure 5)*, DO NOT FILL MEDIUM PAST -MIN- LEVEL MARK *(Maximum cold fill mark)* also, for Solid Medium - See Section 10.

-MIN- Level Mark: Medium should NEVER be allowed to drop below this mark. Should this occur, top up immediately or switch fryer OFF.

Hot Medium and
Topping Up Medium

DO NOT FILL MEDIUM
PAST -MAX- LEVEL MARK
(Maximum Hot Fill Mark).
(See Figure 5).

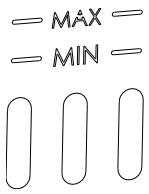


Figure 5

CAUTION: SUITABLE PROTECTIVE CLOTHING MUST BE WORN when topping up whilst fat in fryer is hot.

Medium and Foodstuffs
Food will increase in volume during cooking - follow these rules:

NEVER ADD WATER TO FRYING MEDIUM AT ANY TIME!

WARNING
No attempt must be made to operate this appliance during a power supply failure.

Please ensure that any plastic coated items are removed prior to use. Before operation, pan requires to be washed out and thoroughly dried.

Discolouration of heated parts is caused by factory testing to ensure unit is satisfactory. It will not affect quality or performance.

A neon indicator is incorporated to indicate flame failure when illuminated.

An electronic thermostat with temperature probe is fitted to automatically control oil temperature. The burner is protected by an electronic flame sensor device.

An additional temperature limit thermostat is also fitted, independent of main thermostat.

Operating thermostat failure could allow oil temperature to exceed legislated maximum safe temperature *(230ºC).* In such a condition, limit thermostat will activate and cut power to controller. It will also stop flow of gas to burner.

For location of re-set limit thermostat, refer to Figure 3 (5).

Limit Thermostat Reset
a) Turn burner and temperature controls to OFF position.

b) Allow oil to cool below 180ºC.

c) Remove protective cap from limit thermostat reset button. Ths is located behind cabinet door at upper RH, below fascia panel.

d) Reset red button on limit thermostat with a pen or similar item.

e) Turn burner and temperature controls to ON position.

f) Reselect temperature.

g) If limit thermostat reactivates, an investigation to determine the reason must be carried out by a qualified technician.

6.1 APPLIANCE CONTROLS

Refer to Sections 2.4.1 and 2.4.2 for controls layout and description.

6.2 LIGHTING and OPERATION

Safety Precautions
The installer must fit a gas shut-off valve in the gas pipe that supplies the unit.

IF A SMELL OF GAS IS EVIDENT:

a) TURN OFF GAS SUPPLY.

b) VENTILATE AREA.

c) CALL YOUR LOCAL GAS SUPPLIER.

NEVER USE AN OPEN FLAME TO CHECK FOR GAS LEAKS!

6.2.1 Lighting Instructions

Remove lid *(if fitted)* and baskets and set these aside. Ensure fryer pan is clean and completely dry. Ensure also that drain valve is closed. Pour clean, cold oil to -MIN- level mark on fryplate.

a) Ensure pan is filled with solids / shortening to indicated level and gas supply is established.

b) Ensure burner switch is in off position *(O)*.

c) Press burner switch to on position *(I)*.

Turn knob to select temperature. *(If solid fat is used, select FMC fat melt cycle).*

Warning: Do not select any setting other than FMC when using solid fat. This will trip safety thermostat or, in a worst case scenario, ignite liquefied oils.

d) If burner fails to light, lock-out indicator will illuminate. **Note**: Ignition system will atempt a second ignition sequence - 14 seconds after completion of first try if no flame is detected. *(Unit will lock out after 2nd attempt).*

e) Reset burner by pressing burner lock-out reset switch.

f) If burner repeatedly fails to light, switch off electrical and gas supplies. Call service engineer.

6.2.2 Fryer maximum basket loading

Pre-blanched chilled fries– **2 x 1.5kg baskets.**

Frozen fries – **2 x 1.2kg baskets**.

6.2.3 Using the Controller

When unit is lit as detailed in Section 6.2.1 lighting, operate as follows:-

a) If using solid fat, turn control knob clockwise to select FMC *(Fat Melt Cycle)*.

b) When solid/shortening has liquefied, select desired temperature.

The user MUST be familiar with the location and operation of this valve for shutting off gas in event of an emergency.

c) Fat or oil temperature will then be governed by controller to desired set temperature, selected by user on the control knob.

SECTION 7 - CHANGING/FILTERING THE OIL

Warning
After filtering, wait 30 seconds before removing bucket.

It is dangerous to use shortening that is too old. This medium has a reduced flash point temperature and is prone to surge boiling.

Caution
To prevent surge boiling. DO NOT EXCEED recommended loads or charge pan with over-wet food items. NEVER LEAVE a working appliance unattended.

Warning
When draining solids / shortening, ensure oil has time to strain through strainer basket. Heavily unfiltered oil may overflow.

Note
This could cause pump to block over a period of time and is considered as misuse of equipment.

Warning
When pumping solids / shortening back into fryer pan. Ensure all trace of solids / shortening is emptied from receptacle *(bucket)*.

If oil is not emptied on a regular basis or if oil is left in the receptacle, it may solidify and overflow or spill upon kitchen floor to create a hazard.

7.1 STARTING THE FILTRATION PROCESS

Refer to Figure 7 for details of filtration components.

1. Turn burner & temperature controls ON/OFF switch to OFF position and allow oil to cool below 170°C *(or if cold, heat to minimum temperature of 60°C).* Open cabinet door and pull filter bucket forward.
2. Ensure bucket is clean and emptied of all solids / shortening and debris. Refer to Section 8 for details of how to clean filter components.
3. Ensure that strainer and microfilter are clean.
4. With strainer and microfilter in position, slide bucket back on to runner cradle and back into fryer.

Please Note - **Warning**
Do not handle filter components or adjacent surfaces when pump is operating.

Components will remain hot for a period after filter. Allow cooling. Use of PPE's is recommended.

Note: Burner and temperature controls ON/OFF switch must be in OFF position before operation of filter pump can begin.

7.2 G3840F MODEL

1. Press filtration pump switch to turn on pump.

Note: With cabinet door open, switch is located at RH side of drain valve *(Refer to Figure 4)*.

2. Turn drain handle clockwise.

3. Pan will drain through strainer basket and microfilter into bucket and will pump back into pan.

4. Clear debris from pan and empty crumb catcher.

5. If pan drain becomes blocked, clear using drain prod.

6. When debris has been removed from pan, turn valve handle anti-clockwise to close valve.

7. Allow pan to refill.

8. If any solid / shortening remains, repeat Step 1.

Warning
Ensure all shortening has been pumped from receptacle before topping up pan.

9. Switch filtration pump off.

10. Top up fryer if required.

SECTION 8 - CLEANING and MAINTENANCE

RECOMMENDATION
Personal protective equipment *(PPE)* should be used when cleaning or handling medium within this appliance.

WARNING - NEVER PUMP WATER THROUGH THE FILTRATION PUMP AT ANY TIME!

Warning
The fryer is supplied with castors at rear and should be connected to supply piping by means of a connector for moveable appliances. An anti-tipping restraint should be attached to unit and, if so, this must be disconnected before fryer is moved. Ensure restraint is re-connected when unit is returned to original position.

Moving the fryer with hot or cold oil in fry pot can be dangerous to the operator. Scalding could occur. Spilled oil or fat on the kitchen floor could cause slipping accidents and any such deposit should be cleaned up straight away.

To prevent any such hazard, DO NOT move fryer until all liquid has been drained from fry pot.

The following procedure should be undertaken, AT LEAST DAILY.

IMPORTANT: Disconnect electrical supply before any cleaning commences.

Warning
Oil must be allowed to cool to a safe temperature before draining. Do not overfill draining receptacle.

THE APPLIANCE MUST NOT BE CLEANED WITH A JET OF WATER OR BE STEAM CLEANED. DO NOT USE ACID OR HALOGEN-BASED *(e.g. chlorine)* DESCALING LIQUIDS, FLAMMABLE LIQUIDS, CLEANING AIDS OR CLEANING POWDERS.

Stainless Steel Surfaces
It should be noted that certain scouring pads including nylon types can easily mark stainless steel. Care should be exercised during cleaning process.

When rubbing stainless steel with a cloth, always rub in grain direction.

8.1 CLEANING THE APPLIANCE

1. Carry out actions detailed in Sections 8 and 9.

2. Unit should be switched **OFF** and fry pot drained of oil.

3. Remove baskets, fry plate and crumb catcher. Soak these components in hot soapy water.

4. With drain valve open, remove any traces of debris from fry pot using a clean, damp cloth.

NOTE: Care should be taken not to damage sensors located at pan front.

5. Remove strainer and micro-filter, soak these in hot soapy water.

6. Wash, rinse and dry removed items thoroughly. Set these aside.

7. Close drain valve.

8. Fill fry pot to 3/4 full with hot water.

9. Clean pan using a soft, clean cloth and hot soapy water. Rub away any stubborn staining with a scouring pad and suitable detergent.

10. Open drain valve. Drain water into bucket below.

11. Use clean water to rinse fry pot and dry thoroughly.

12. Close drain valve.

13. Return crumb catcher, fry plate and baskets to pan.

14. Remove oil bucket by pulling forward then upward.

15. Use handles and lift oil bucket to sink.

16. Pour away soiled water.

17. Thoroughly wash, rinse and dry oil bucket and oil suction pipe.

18. Replace strainer and microfilter in oil bucket and return oil bucket to cradle.

19. Fill fry pot with clean oil/solid/shortening to -MIN- mark. To relight, refer to Section 6.2.

SECTION 9 - PREPARATION OF SOLID FATS / SHORTENING

COOKING HINTS

Allow approximately 10 minutes for unit to heat up from cold to required operating temperature.

CHOICE OF FRYING MEDIUM

Select a top quality medium to obtain optimum results. Shortening or solid fats can be used if necessary.

Solid fats MUST be heated carefully as these have a lower smoke point temperature than shortening.

A fat melt cycle will pulse heat into the fryer.

A quality shortening is a more stable frying medium. It allows longer periods of use without smoking or foaming. It will also give food a better flavour.

Quality shortening has a higher flashpoint temperature and will reduce gumming around pan.

Regular filtering will help extend lifespan of the medium.

WARNING -
NEVER EVER MIX SHORTENING AND SOLID FAT!

Charging The Pan

Prior to operation, clean fry pot out using hot water and detergent. Rinse out and dry thoroughly.

Ensure drain valve is closed. Fill fry pot with cold shortening to -MIN- level mark on fry plate.

Maximum oil level capacity is 18 litres.

Solid Fat

If solid fat is to be used, remove fish plate and cut fat into small pieces. Place 17kg in fry pot and pack it down. Position fry plate upon fat and push front end into it lightly until front edge is below temperature probe.

Ensure FAT MELT CYCLE is selected for this process.

Note

Fry plate will lower slowly into fry pot as solid fat melts.

Warning

If fry plate does not sit flat, lift plate from centre slightly and lower carefully to ensure that no splashing of hot shortening occurs.

Check correct shortening level is achieved when all solid fat has melted. Required temperature may then be set.

Solid fat should always be heated this way to prevent overheating and burning.

WARNING: It is dangerous to use shortening that is too old. Such shortening has a reduced flash point temperature and is prone to surge boiling.

CAUTION: To prevent surge boiling. **DO NOT EXCEED** recommended loads or charge pan with over-wet food items. **NEVER leave a working appliance unattended**.

SECTION 10 - COOKING HINTS

Frying food involves many variables and the following information is a guide only.

1. Ensure frying medium is clean and free of debris.

2. When topping up with oil, ensure oil level does not exceed -MIN- line when cold and -MAX- line when hot.

3. Never overfill baskets with food product.

4. Filter oil as often as possible. This can be done when oil temperature is below 180°C.

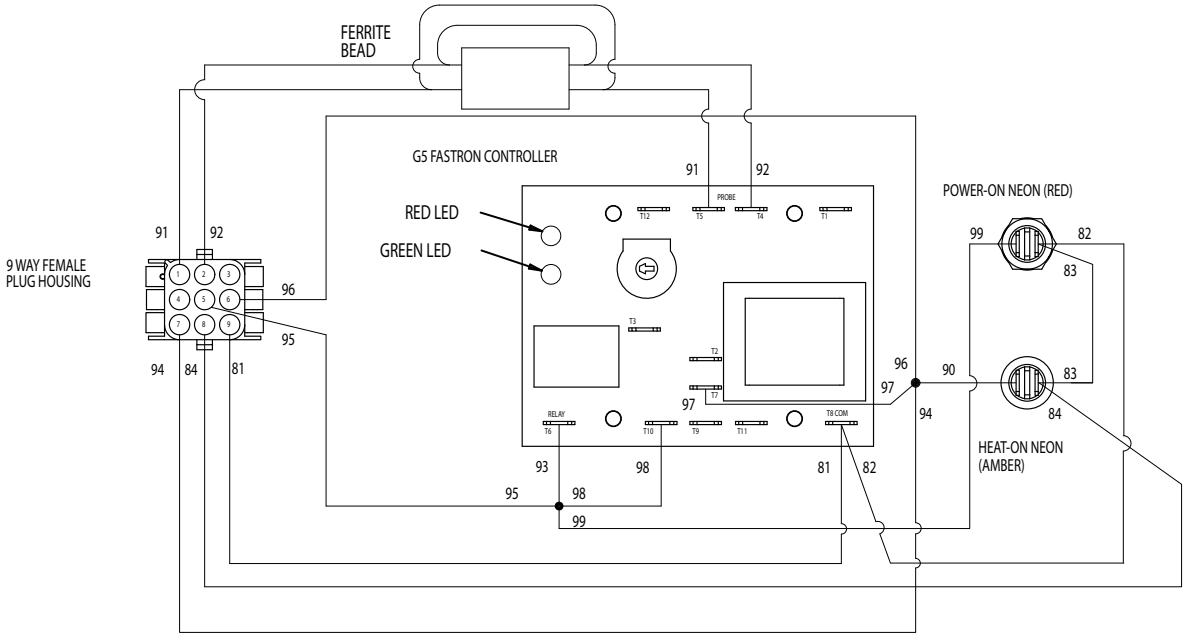
5. It is advised that a skimmer should be used continuously between frying batches to remove any floating debris. Failure to do this may result in the oil becoming bitter to taste.

6. During quiet spells, it is recommended that thermostat is turned down to a lower setting. This will conserve energy in addition to extending expected oil life.

7. To ensure a good eating experience, fry food as close to serving time as possible.

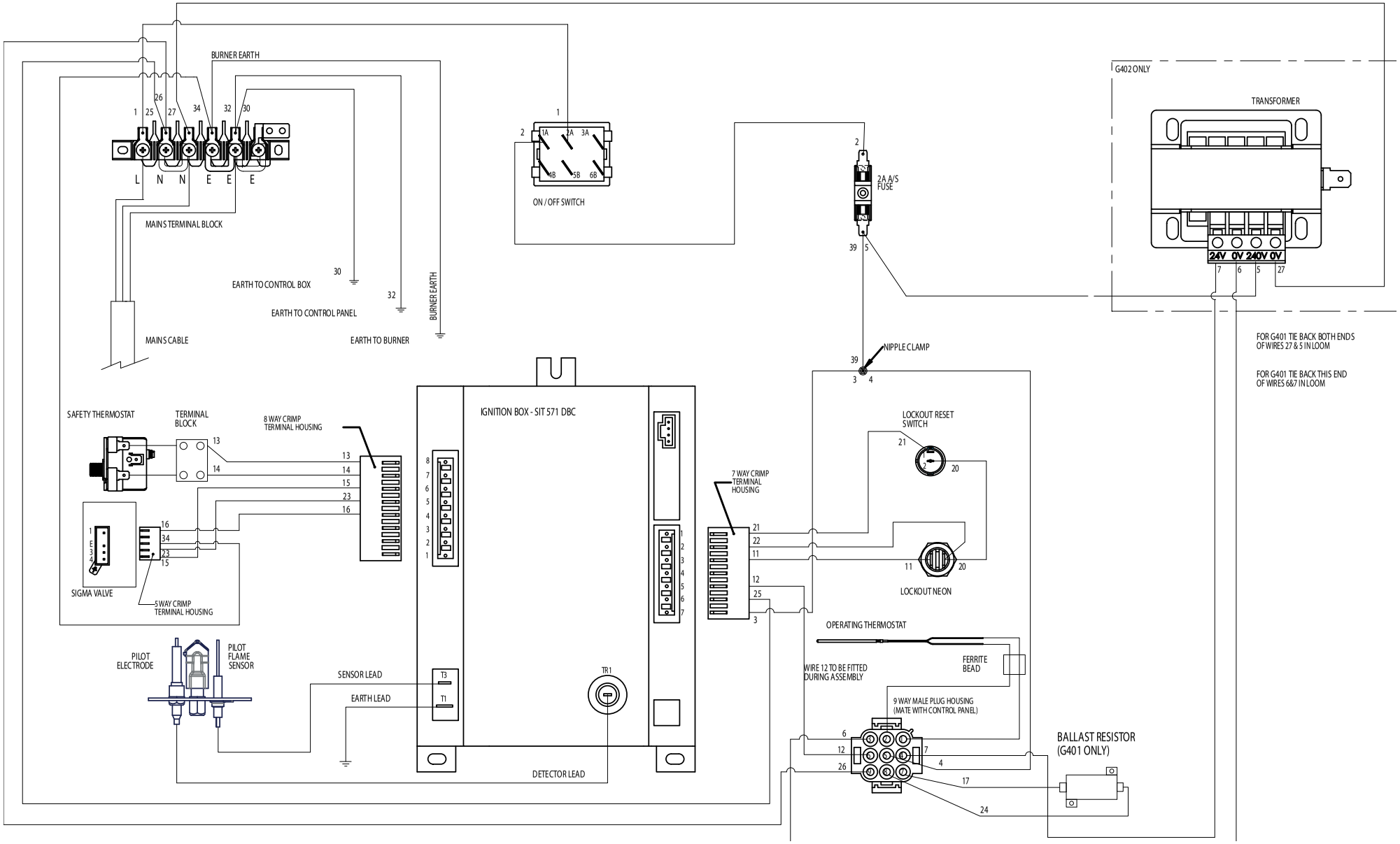
8. After serving and when fryer has been turned off, replace lid to ensure that no foreign bodies can contaminate frying medium.

G3840 / G3840F Control Panel Wiring Diagram

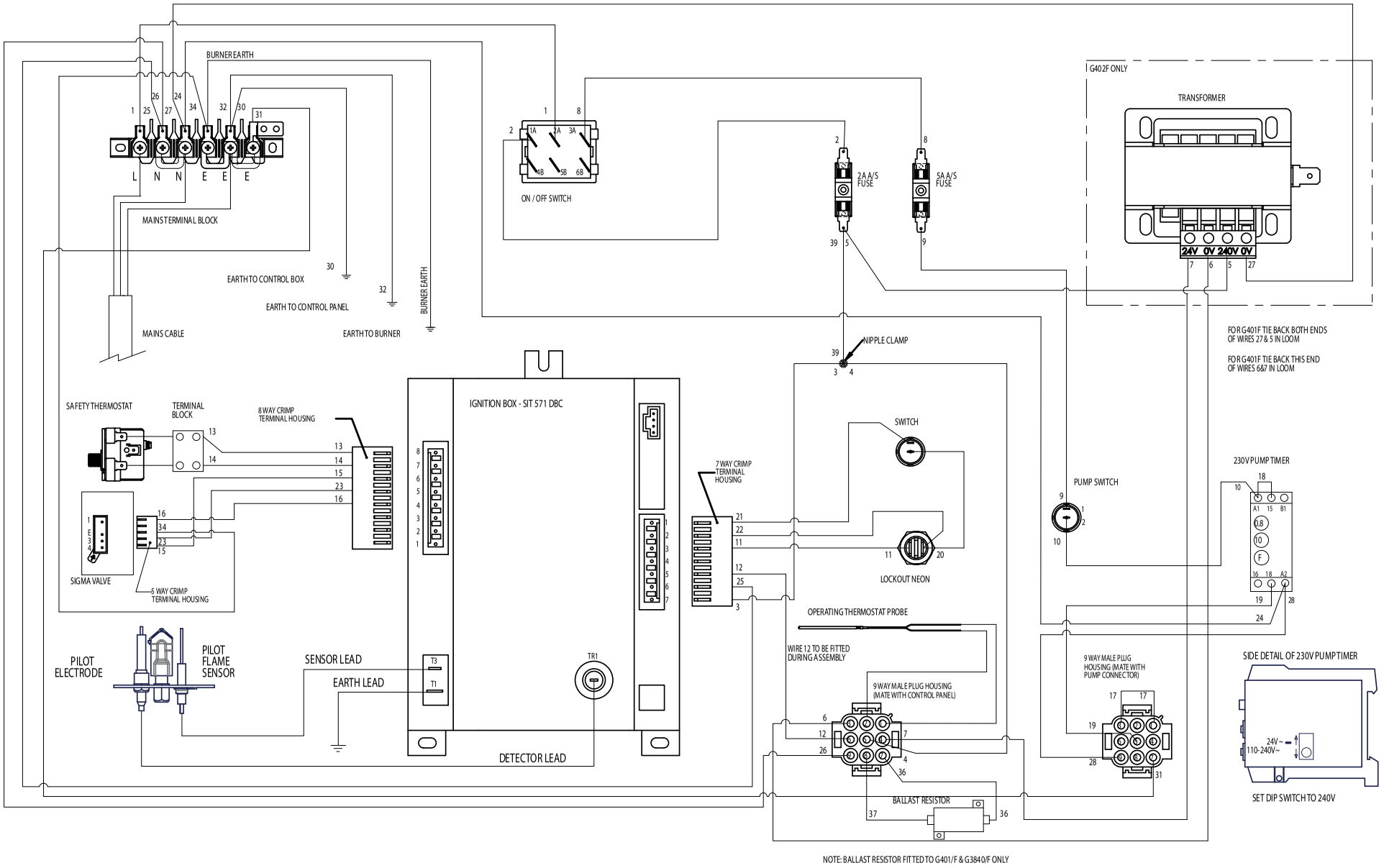


NOTE:
WHEN FITTING FERRITE BEAD TWIST WIRES WITH ONE LOOP ROUND
DO NOT TIE IN WITH OTHER WIRES.

SECTION 11 - WIRING DIAGRAM for G3840

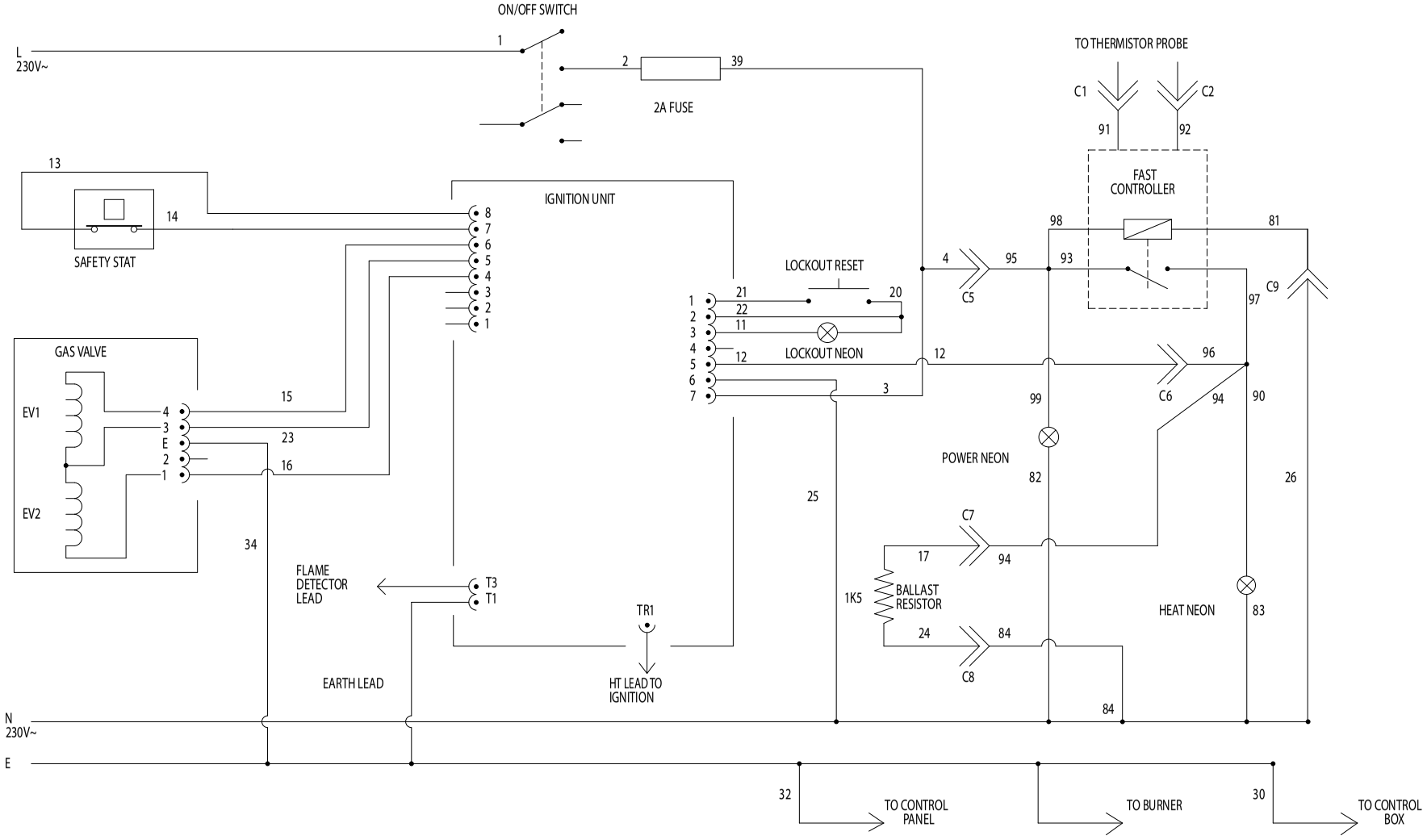

BURNER EARTH
1 25 26 27 34 32 30
L N N E E E
MAINS TERMINAL BLOCK
EARTH TO CONTROL BOX
EARTH TO CONTROL PANEL
EARTH TO BURNER
BURNER EARTH
MAINS CABLE
1 2 1A 2A 3A 4B 5B 6B
ON / OFF SWITCH
2 39 5
2A A/S FUSE
G402 ONLY
TRANSFORMER
24V 0V 240V 0V
7 6 5 27
FOR G401 TIE BACK BOTH ENDS OF WIRES 27 & 5 IN LOOM
FOR G401 TIE BACK THIS END OF WIRES 6&7 IN LOOM
39 3 4
NIPPLE CLAMP
SAFETY THERMOSTAT
TERMINAL BLOCK
8 WAY CRIMP TERMINAL HOUSING
13 14 15 23 16
IGNITION BOX - SIT 571 DBC
8 7 6 5 4 3 2 1
1 2 3 4 5 6 7
7 WAY CRIMP TERMINAL HOUSING
21 22 11 12 25 3
LOCKOUT RESET SWITCH
21 2 20
11 20
LOCKOUT NEON
1 E 3 4
16 34 23 15
SIGMA VALVE
5 WAY CRIMP TERMINAL HOUSING
OPERATING THERMOSTAT
FERRITE BEAD
WIRE 12 TO BE FITTED DURING ASSEMBLY
9 WAY MALE PLUG HOUSING (MATE WITH CONTROL PANEL)
6 12 26 7 4 17 24
BALLAST RESISTOR (G401 ONLY)
PILOT ELECTRODE
PILOT FLAME SENSOR
SENSOR LEAD
EARTH LEAD
T3 T1
TR1
DETECTOR LEAD

SECTION 11 - WIRING DIAGRAM for G3840F



NOTE: BALLAST RESISTOR FITTED TO G401/F & G3840/F ONLY

CIRCUIT DIAGRAM for G3840



CIRCUIT DIAGRAM for G3840F